

AMENDMENTS TO THE CLAIMS:

Claim 1 (Previously presented) A bottom-gate thin-film transistor comprising a gate electrode, a gate insulating film, an active layer, and a protective insulating film deposited in that order on a substrate,

wherein the protective insulating film has a thickness of about 100 nm or less, and the protective insulating film is formed on any one of the active layer, an LDD region, and a source-drain region.

Claim 2 (Withdrawn) A bottom-gate thin-film transistor according to Claim 1, wherein the active layer comprises a polysilicon film.

Claim 3 (Previously presented) A bottom-gate thin-film transistor according to either Claim 1 or 2, wherein the protective insulating film has a thickness of between about 5 and about 50 nm.

Claim 4 (Currently amended) A method of making a bottom-gate thin-film transistor comprising:

forming a gate electrode on a transparent substrate;

forming a gate insulating film on the gate electrode, the gate insulating film comprising a silicon oxide film formed on a silicon nitride film;

forming a laminate on said gate insulating film, comprising:

forming a ~~precursor film for an active layer~~ first layer, and

forming a protective insulating film directly on and in physical contact with said ~~precursor film~~ first layer without using an etching process, the protective insulating film having a thickness of about 100 nm or less;

implanting a dopant when forming one of an LDD region and a source-drain region of the ~~precursor film for the active layer~~ first layer through the protective insulating film without etching said protective insulating film;

activating the implanted dopant so that a non-doped portion comprises the ~~active layer~~, and

forming an interlayer insulating film on the protective insulating film.

Claim 5 (Currently amended) The method of making a bottom-gate thin-film transistor according to Claim [[4]] 6, wherein the precursor layer comprises an amorphous silicon film and the active layer comprises a polysilicon film.

Claim 6 (Currently amended) The method of making a bottom-gate thin-film transistor according to Claim [[5]] 4, wherein, in the laminate forming step, an amorphous silicon film the first layer is a precursor layer for an active layer and is formed on the gate insulating film, the amorphous silicon film precursor layer is crystallized to form an active layer the polysilicon film, and then the protective insulating film is formed on the active layer polysilicon film.

Claim 7 (Currently amended) The method of making a bottom-gate thin-film transistor according to Claim [[5]] 4, wherein, in the laminate forming step, an amorphous silicon film the first layer is a precursor layer for an active layer and is formed on the gate insulating film, the protective insulating film is continuously formed on the amorphous silicon film precursor layer, and then the amorphous silicon film precursor layer is crystallized to form the polysilicon film active layer.

Claim 8 (Previously presented) A method of making a bottom-gate thin-film transistor comprising:

- forming a gate electrode on a substrate;

- forming a gate insulating film on the gate electrode;

- forming a laminate on the gate insulating film comprising:

- forming a precursor film for an active layer, and

- forming a protective insulating film directly on and in physical contact with the precursor film, the protective insulating film having a thickness of about 100 nm or less;

implanting a dopant in one of an LDD region and a source-drain region of the precursor film for the active layer through the protective insulating film without etching the protective insulating film; and

activating the implanted dopant so that a non-doped portion comprises the active layer;

wherein, in the laminate forming step, an amorphous silicon film is formed on the gate insulating film, the protective insulating film is formed on a surface of the amorphous silicon film by surface oxidation of the amorphous silicon film, and then the amorphous silicon film is crystallized to form the polysilicon film, the surface oxidation comprising exposing the amorphous silicon film to hot steam of about 400 degrees Centigrade.

Claim 9 (Previously presented) A method of making a bottom-gate thin-film transistor according to Claim 4, wherein, subsequent to the dopant implanting step, defects formed in the protective insulating film are recovered by applying a temperature of about 600 degrees Centigrade.

Claim 10 (Withdrawn) A liquid crystal display device comprising:

a TFT substrate comprising an interlayer insulating film, a transparent electrode, and an alignment layer formed on a protective insulating film of a bottom-gate thin-film transistor according to any one of Claims 1 to 3;

a counter substrate provided with a counter electrode; and

a liquid crystal interposed between the TFT substrate and the counter substrate.

Claim 11 (Currently amended) A method of fabricating a liquid crystal display device comprising:

making a bottom-gate thin-film transistor by a method according to any one of Claims 4 to 9;

forming an interlayer insulating film directly on and in physical contact with the protective insulating film of the bottom-gate thin-film transistor, forming a planarizing layer directly on and in physical contact with the interlayer insulating film, forming a transparent electrode directly on and in physical contact with the planarizing layer, and forming an alignment layer directly on and in physical contact with ~~[[a]] the transparent electrode protective insulating film of the bottom-gate thin film transistor~~ to comprise a TFT substrate; and

interposing a liquid crystal between the TFT substrate and a counter substrate provided with a counter electrode.

Claim 12 (Withdrawn) An organic EL device comprising:

a bottom-gate thin-film transistor according to any one of Claims 1 to 3;

and

an organic EL element driven by the bottom-gate thin-film transistor.

Claim 13 (Previously presented) A method of fabricating an organic EL device comprising:

making a bottom-gate thin-film transistor by a method according to any one of Claims 4 to 9;

forming an interlayer insulating film on a protective insulating film of the bottom-gate thin-film transistor; and

forming an organic EL element driven by the bottom-gate thin-film transistor on the interlayer insulating film, the EL element including a luminescent layer sandwiched between a first pair of layers comprising an anode layer and a hole-transporting layer and a second pair of layers comprising an electron-transporting layer and a cathode layer.

Claim 14 (Canceled)

Claim 15 (Previously presented) A method of fabricating an organic EL device according to Claim 13, wherein the forming of the organic EL element comprises forming the cathode layer, forming the electron-transporting layer, forming the luminescent layer, forming the hole-transporting layer, and forming the anode layer, in this order.

Claim 16 (Previously presented) A method of fabricating an organic EL device according to Claim 13, wherein the forming of the organic EL element comprises forming the anode layer, forming the hole-transporting layer, forming the luminescent layer, forming the electron-transporting layer, and forming the cathode layer, in this order.

Claim 17 (Previously presented) A method of fabricating an organic EL device according to Claim 13, wherein the cathode layer is composed of a magnesium-indium alloy or an aluminum-lithium alloy.

Claim 18 (Previously presented) A method of fabricating an organic EL device according to Claim 13, wherein the electron-transporting layer is composed of a 10-benzo[h]quinolinol-beryllium complex.

Claim 19 (Previously presented) A method of fabricating an organic EL device according to Claim 13, wherein the luminescent layer is composed of an 8-quinolinol-aluminum complex containing a quinacridone derivative.

Claim 20 (Previously presented) A method of fabricating an organic EL device according to Claim 13, wherein the hole-transporting layer is composed of TPD (4,4',4"-tris-(methylphenylphenylamino)triphenylamine), MTDATA (4,4'-bis(3-methylphenylphenylamino)biphenyl), or α -NPD (α -naphthylphenyldiamine).

Claim 21 (Previously presented) A method of fabricating an organic EL device according to Claim 13, wherein the anode layer is composed of platinum, rhodium, or palladium.

Claim 22 (New) The method of making a bottom-gate thin-film transistor according to Claim 7, wherein the precursor layer comprises an amorphous silicon film and the active layer comprises a polysilicon film.